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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/869,275	06/04/97	WITTMER	T8616.CIP5

BARNES & THORNBURG
11 SOUTH MERIDIAN STREET
INDIANAPOLIS IN 46204

HM12/1109

EXAMINER
MARSCHEL, A

ART UNIT	PAPER NUMBER
1655	11

DATE MAILED: 11/09/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/869,275

Applicant(s)
Wittmer et al.

Examiner
Ardin Marschel

Group Art Unit
1655



☒ Responsive to communication(s) filed on Aug 17, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 13-35, 55-59, 79-82, and 87-92 is/are pending in the application

~~Of the above, Claim(s) 1-12, 36-54, 60-78, 83-86, and 93-117 have been canceled. ~~State with own from prosecution~~~~

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 13-35, 55-59, 79-82, and 87-92 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). (7 sheets)

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

The art unit designated for this application has changed. Applicant(s) are hereby informed that future correspondence should be directed to Art Unit 1655.

Applicants' arguments, filed 8/17/99, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Applicants' election without traverse of Group II (claims 13-35, 55-59, 79-82, and 87-92) in Paper No. 10, filed 8/17/99, is acknowledged.

It is noted that applicants have listed several applications in the Declaration which are cited as being claimed regarding priority benefit under 35 U.S.C. § 120 but applicants have not cited the relationship as to continuation, C-I-P, or whatever to the instant application. It is also noted that page 3 of the instant specification at line 3 lacks a copending application serial number. Applicants are hereby requested to amend the relationship(s) to the instant application in the section entitled "Related Applications" as well as the blank line noted above.

Claims 13-35, 55-59, 79-82, and 87-92 are rejected, as discussed below, under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

Claims 13 and 33 are vague and indefinite due to lines 3-5 therein where the phrase "the sample container comprising an optically clear material holding less than 1 milliliter of a sample" is unclear. One interpretation is that the 1 milliliter limitation is directed to the optically clear material. Another interpretation is that the entire sample container is limited to holding less than 1 milliliter. Clarification as to which interpretation is meant is requested via clearer claim wording. Claims dependent from claims 13 and 33 also contain this unclarity due to their dependence directly or indirectly from claims 13 or 33. Claim 18 also contains this unclarity specifically therein by citing a volume limitation which confusingly is not directed clearly to the sample container versus the glass portion of the sample container.

Claims 16 and 17 are additionally vague and indefinite in that control mechanisms are therein cited which seem to be further mechanisms over the control means in claim 13. It is confusing as to what is meant by having two controls for the heating and cooling in conflict by controlling the same practice. Clarification of the relationship between the control means of claim 13 and the control mechanisms of claims 16 and 17 is requested via clearer claim wording.

Claim 33, lines 3-4, are vague and indefinite due to lacking

clear antecedent basis due to citing "a plurality of sample containers" in line 3 and "the sample container" in line 4 which conflicts as to which container is meant in line 4 of the plurality in line 3. Clarification due to clearer claim wording is requested.

Claim 33 is vague and indefinite in citing a capillary tube in line 5 while also confusingly citing three ends in lines 6-7 as a sealed, open, and another end. It is unclear what is meant for such a capillary which normally only has two ends. Clarification via clearer claim wording is requested.

In the last 9 lines of claim 33 the phrase "the sample" is given which lacks clear antecedent basis because both a plurality of samples as well as single samples are cited in previous lines in the claim. Clarification via clearer claim wording is requested. It is additionally noted that the last 4 lines of claim 33 are directed to a reaction parameter but confusingly without stating which sample of the plurality is measured regarding the parameter. This is an unclarity is specifically given in claims 34 and 35 also.

Claim 33, lines 20-22, cites the detection of both a first and second wavelength which gives two signals. In claim 33, line 24, the phrase "the detected fluoresce" (one signal) which lacks antecedent basis as apparently two fluorescent signals are produced in said lines 20-22. Clarification of the relationship between these phrase via clearer claim wording is requested. The

unclear phrase "the detected fluoresce" is also present in claim 35, line 4. Claims dependent from claim 33 also contain this unclarity due to their dependence directly or indirectly from claim 33.

Claim 55 is vague and indefinite in that lines 16-21 therein cite a first and second means which are described as being monitored together via the word "and" in line 17 directed to both of said means whereas in conflict only one sample is given in the monitoring position in lines 18-21. Also, a singular reaction is cited in the last two lines of claim 55 via the phrase "the biological reaction" which lacks clear antecedent basis due to the practice of two sample holding means in lines 3-6 of claim 55. Similarly, claim 56 cites only one monitoring position whereas two samples apparently are being utilized in claim 55 thus causing additional unclarity in claim 56. Clarification via clearer claim wording is requested.

Claims 79-81 are vague and indefinite due to lacking definition of the cooperativity between the chamber cited therein and the sample vessels. Clarification via clearer claim wording is requested.

Claim 80 is additionally vague and indefinite due to citing capillary tubes without defining the cooperativity between said tubes and the sample vessel of claim 79. Clarification via clearer claim wording is requested.

Claim 82, lines 12 and 13, cite the phrase "the vessel"

without clear antecedent basis as to which vessel is meant to the plurality of vessels cited in line 6. This unclarity is also present in lines 17 and 21. Clarification via clearer claim wording is requested.

Claim 87 is vague and indefinite due to citing "said device" in line 4 without antecedent basis for any device, much less whatever is meant in said line 4. Clarification via clearer claim wording is requested.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 33, 35, and 55-59 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wittmer et al. (Ref. FB on the enclosed PTO Form 1449).

Wittmer et al.(FB) depicts a system on page 2, Figure 1, which contains capillary tubes in a carosel which may be monitored via fluorescence. The samples are small as suggested in the ul range in the Figure 1 legend. Multiple wavelengths are monitored as noted on page 1 in lines 7-10 of the section entitled "Instrumentation". Hot and cold air(fluid) is utilized for heating and cooling as described in said Figure 1 legend. Figure 2 on page 4 of the reference describes a fluorescence signal which is updated in real time at least at each cycle of amplification.

Thus, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to practice the instant invention because Wittmer et al.(Ref. FB) suggests and motivates small sample practice as required in the instant claims and describes all of the other limitations of the above claims. The rejection is also applied because the authorship of the reference is different from that of the instant application.

The disclosure is objected to because of the following informalities:

In claims 25, 27, 28, 33, and 35; lines 3, 3, 4, 24, and 4; respectively; the word "fluoresce" appears to be misspelled.

Claim 58, line 12, the word "comprises" appears to be misspelled in context.

Claim 90, line 2, contains the word "an" which is confusing in context.

Appropriate correction is required.

On the enclosed PTO Form 1449 several citations are lined through because of a lack of a date of publication as required on such a form.

No claim is allowed.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703) 308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

November 8, 1999

Ardin H. Marschel
ARDIN H. MARSCHEL
PRIMARY EXAMINER